What is claimed is:

1. A bloodless catheter comprising

a first hub having a bore at a proximal end;

a cannula fixed in and extending from an opposite distal end of said hub for invasive positioning in a blood vessel; and

a septum seal mounted in said bore of said hub in circumferentially sealed relation to prevent a flow of fluid from said cannula to said proximal end of said hub, said seal having a weakened central section.

2. A bloodless catheter as set forth in claim 1 wherein said seal is made of elastomeric material.

3. A bloodless catheter as set forth in claim 1 wherein said weakened section of said seal has a slit therein to define a valve.

4. A bloodless catheter as set forth in claim 1 wherein said seal is slidably mounted in said bore.

5. A bloodless catheter as set forth in claim 1 wherein said seal is mounted at one end of said bore with a face thereof exposed for swabbing.

6. A bloodless catheter as set forth in claim 1 further comprising first means in said hub for forming a flow path through said weakened section of said seal in response to a relative movement between said means and said seal.

7. A bloodless catheter as set forth in claim 6 wherein said first means is a tube mounted in said weakened section of said seal and extending into said cannula.

8. A bloodless catheter as set forth in claim 7 wherein said seal has a tubular portion receiving said tube in stretch-fit manner and a centrally disposed slit.

9. A bloodless catheter as set forth in claim 7 which further comprises second means for moving said seal over said tube to cause said tube to pass through said weakened section of said seal.

10. A bloodless catheter as set forth in claim 6 wherein said first means is a piercing ring mounted on said seal for pushing through said weakened section of said seal in a direction towards said cannula to define a flow path through said seal.

11. A bloodless catheter as set forth in claim 10 which further comprises second means for moving said piercing ring through said weakened section of said seal.

12. A bloodless catheter as set forth in claim 11 wherein said second means is a male luer adaptor slidably mounted in said bore of said hub in sealed relation and engaging said ring to push said ring through said weakened section of said seal.

13. A bloodless catheter as set forth in claim 6 which further comprises second means for moving said first means relative to said seal.

14. A bloodless catheter as set forth in claim 13 wherein said second means is a male luer adaptor slidably mounted in said bore of said hub in sealed relation and engaging said septum seal in sealed relation.

15. A bloodless catheter as set forth in claim 1 which further comprises

a needle hub telescopically mounted in said bore of said first hub; and an introducer needle fixed in said needle hub and extending through said seal in sealed relation and through said cannula.

16. A bloodless catheter as set forth in claim 1 which further comprises a guide wire extending through said weakened section of said seal and said cannula.

17. A bloodless catheter as set forth in claim 1 which further comprises a stylet extending through said weakened section of said seal and said cannula.

18. A bloodless catheter as set forth in claim 1 wherein said cannula is a needle with a sharpened tip.

19. In combination

first hub having a bore at a proximal end, a cannula fixed in and extending from an opposite distal end of said hub, a septum seal mounted in said bore of said hub in circumferentially sealed relation to prevent a flow of fluid from said cannula to said proximal end of said hub, and a tube mounted in said seal in sealed relation and extending into said cannula;

a needle hub telescopically mounted in said bore of said first hub and an introducer needle fixed in said needle hub and extending through said seal in sealed relation and through said cannula; and

a male luer adaptor for slidable mounting in said bore of said first hub after withdrawal of said needle hub therefrom, said adaptor being sized to engage and push said seal over said tube while receiving said tube therein in concentric relation.

20. In combination

a first hub having a bore at a proximal end, a cannula fixed in and extending from an opposite distal end of said hub, a septum seal mounted in said bore of said hub in circumferentially sealed relation, said seal having a centrally disposed slit to define a valve, and a piercing ring mounted on said seal concentrically of said slit;

a needle hub telescopically mounted in said bore of said first hub and an introducer needle fixed in said needle hub and extending through said seal in sealed relation and through said cannula; and

a male luer adaptor for slidable mounting in said bore of said first hub after withdrawal of said needle hub therefrom, said adaptor being sized to engage and push

said piercing ring through said slit in said seal to communicate said adaptor with said cannula.

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